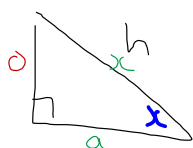


Map 4C
 Trig Ratios with Acute
 Triangles
 2.1 p. 74-83

Primary Trig Ratios

SOH CAH TOA



$$\sin \angle x = \frac{o}{h}$$

$$\cos \angle x = \frac{a}{h}$$

$$\tan \angle x = \frac{o}{a}$$

Pythagorean
Theorem

$$a^2 + b^2 = h^2$$

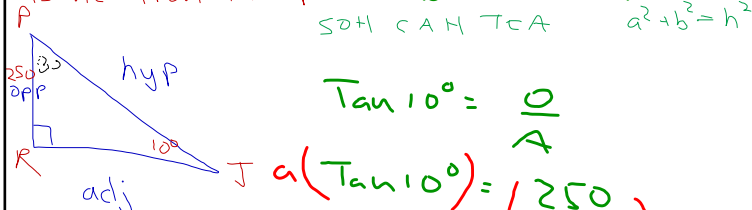
Feb 2-12:30 PM

Trigonometry to find Side Lengths

Jason observes a plane 250m in the air
 at an angle of inclination of 10 degrees

How far

is he from the plane? (ground distance)



$$\tan 10^\circ = \frac{o}{a}$$

$$a(\tan 10^\circ) = \left(\frac{250}{\tan 10^\circ} \right)$$

$$a = \frac{250}{\tan 10^\circ}$$

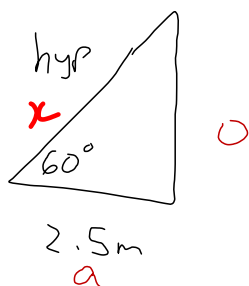
$$a = \frac{250}{(0.1763)}$$

$$a = 1418.0$$

Jason is 1418m from the
 plane on the ground.

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p.6 Example



SOH CAH TOA

$$\cos 60^\circ = \frac{a}{h}$$

$$\cos 60^\circ = \frac{2.5m}{h}$$

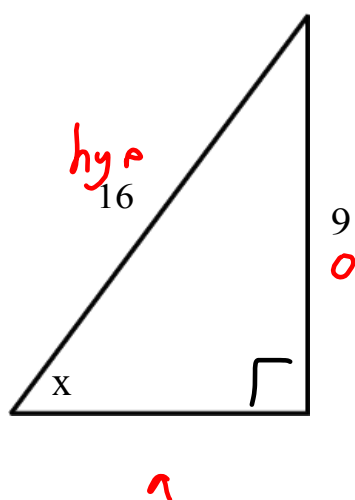
$$h = \frac{2.5m}{\cos 60^\circ}$$

$$h = \frac{2.5m}{(0.5000)}$$

$$h = 5.0m$$

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Solve for an Angle

SOH CAH TOA

$$\sin x = \frac{o}{h}$$

$$\sin x = \frac{9}{16}$$

$$\sin x = (0.5625)$$

$$x = \sin^{-1}(0.5625)$$

$$x = 34^\circ$$

Feb 14-3:01 PM

Hmk p. 81-83
q. 6,7, 9-12, 13*

Feb 14-2:53 PM